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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/904,121	07/31/1997	JOHN H VRZALIK	7030301.1900	3409

30159 7590 09/21/2004

ATTN: LEGAL-MANUFACTURING
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EXAMINER

HO, THOMAS Y

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/904,121

Applicant(s)

VRZALIK, JOHN H

Km

Examiner

Thomas Y Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 28-30 is/are rejected.
- 7) ☒ Claim(s) 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Status of Claims

Claims 1-30 are currently pending. No claims have been withdrawn or cancelled.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/1/04 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma US5862551 in view of Johnston US4409695.

As to claim 1, Oguma discloses: a bed, comprising: a frame 1/31/95 adapted to support patients having weights; said frame including an articulated mattress support 95 for supporting a mattress M, said support including at least first, second and third articulatable sections positioned to support a leg region, a seat region and a head region, respectively, of the mattress supported on said support; a raise-and-lower mechanism 11 for generally raising and lowering the entire mattress support relative to a floor-engaging portion of the frame; an articulation mechanism 51

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for articulating the mattress support from a relatively horizontal, lying position to a seated position; and controls for tilting the mattress support lengthwise.

The difference between the claim and Oguma is the claim recites: a bariatric bed; weights in the range of 500 to 800 pounds. Johnston discloses: an articulating hospital bed similar to that of Oguma. In addition, Johnston further teaches a bariatric bed supporting weights in the range from 500-800 pounds (col. 1, ln. 10-17).

It would have been obvious to one of ordinary skill in the art, having the disclosures of Oguma and Johnston before him at the time the invention was made, to modify the bed of Oguma to support heavier weights, as in Johnston. One would have been motivated to make such a combination because the ability to provide great structural rigidity and strength to accommodate heavy patients would have been achieved, as taught by Johnston (col. 1, ln. 30-35).

As to claim 2, Oguma discloses: wherein said raise-and lower mechanism comprises a head end torque arm 19b/19b and a leg end torque arm 19a/19a, each said torque arm being pivotally disposed upon said frame, said leg end torque arm being adapted to support said second articulatable section from a first pair of laterally diverse points 46/46, said first pair being substantially adjacent said first articulatable section, and said head end torque arm being adapted to support said second articulatable section from a second pair of laterally diverse points 44, said second pair being substantially adjacent said third articulatable section.

Claims 3-8, 15-18, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma US5862551 in view of Johnston US4409695, and further in view of Weismiller US5317769.

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As to claim 3, the difference between the claim and Oguma is the claim recites: wherein each said torque arm is independently actuatable. Weismiller discloses an articulating hospital bed similar to that of Oguma. In addition, Weismiller further teaches using independently actuatable torque arms 40/42 to raise and lower a bed.

It would have been obvious to one of ordinary skill in the art, having the disclosures of Oguma and Weismiller before him at the time the invention was made, to modify the connected torque arms of Oguma to be independently actuatable, as in Weismiller. One would have been motivated to make such a combination because the ability to move the bed to the Trendelenburg and reverse Trendelenburg positions would have been achieved, as taught by Weismiller (col. 1, ln. 55-65).

As to claim 4, Oguma discloses, wherein said raise-and-lower mechanism further comprises: a leg end jack 17, said leg end jack being adapted to actuate said leg end torque arm for raising and lowering of the portion of said second articulatable section adjacent said first articulatable section; and a head end jack 17, said head end jack being adapted to actuate said head end torque arm for raising and lowering of the portion of said second articulatable section adjacent said third articulatable section.

As to claim 5, Oguma discloses: wherein said jack 13/14 is actuatable by a jack motor 12 mounted to the frame and said jack is actuatable by said jack motor.

The difference between the claim and Oguma is the claim recites: a first jack motor and a second jack motor. Weismiller teaches having two jacks and jack motors, as opposed to the single jack motor in Oguma. It would have been obvious to one of ordinary skill in the art, having the disclosures of Oguma and Weismiller before him at the time the invention was made,

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to modify the jack motor of Oguma to be duplicated, as in Weismiller. One would have been motivated to make such a combination because the ability to achieve the Trendelenburg positions would have been provided.

As to claim 6, Oguma discloses: wherein each said jack motor is a linear actuator type motor.

As to claim 7, Weismiller teaches: wherein said raise-and-lower mechanism is adapted to position said mattress support up to 10° Trendelenburg.

As to claim 8, Weismiller teaches: wherein said raise-and-lower mechanism is adapted to position said mattress support in up to 12° reverse Trendelenburg.

As to claim 15, Oguma discloses: wherein said articulation mechanism comprises a head-up jack 56/56 dependently interposed between said second articulatable section and said third articulatable section, said head-up jack being adapted to articulate said third section relative to said second section for raising and lowering of the head region of the mattress.

As to claim 16, Oguma discloses: wherein said articulation mechanism further comprises a leg-down jack 57/57 (see Fig. 3 and 22A) dependently interposed between said second articulatable section and said first articulatable section, said leg-down jack being adapted to articulate said first section relative to said second section for lowering and raising of the leg region of the mattress.

As to claim 17, Oguma discloses: wherein said leg end jack, head end jack, head-up jack and leg-down jack are cooperatively adapted to position the mattress support as a cardiac chair (see Fig. 3).

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As to claim 18, Oguma discloses: wherein said leg end jack, head end jack, head-up jack and leg-down jack are cooperatively adapted to articulate the mattress support into a position that facilitates patient ingress and egress over the leg region of the mattress.

As to claim 23, Oguma discloses: a bed, comprising: a frame adapted to support patients having weights; said frame including an articulated mattress support for supporting a mattress, said support including at least first, second and third support sections positioned to support a leg region, a seat region and a head region, respectively, of the mattress supported on said support; a leg end torque arm being pivotally disposed upon said frame, said leg end torque arm being adapted to support said second support section from a first pair of laterally diverse points; a head end torque arm being pivotally disposed upon said frame, said head end torque arm being adapted to support said second support section from a second pair of laterally diverse points; wherein the first and third support sections are pivotally joined to said second support section; and an articulation mechanism operable to articulate the respective relations of the first, second, and third support sections of the mattress support from a relatively horizontal, lying position to a seated position.

Johnston teaches: a bariatric bed; weights ranging from 500 to 800 pounds.

Weismiller teaches: wherein the leg end torque arm and the head end torque arm are independently actuatable to tilt said second support section with respect to the frame.

Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma US5862551 in view of Johnston US4409695, and further in view of Weismiller US5317769, and further in view of Richards US5295276.

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As to claim 19, the difference between the claim and Oguma is the claim recites: wherein said frame further comprises a foot board assembly adapted to be used as a step to support a patient entering or exiting the bed, said foot board assembly being adapted to articulate relative to said first section, from a resting position, when a force is applied thereto, but to increasingly resist said force with increasing degree of articulation. Richards discloses an articulating hospital bed similar to that of Oguma. In addition, Richards discloses a foot board assembly (Fig. 2) that articulates relative to the lower section of an articulating mattress from a resting position, when a force is applied thereto, and that increasingly resists the force with increasing degree of articulation (col. 5, ln. 34-40).

It would have been obvious to one of ordinary skill in the art, having the disclosures of Oguma and Richards before him at the time the invention was made, to modify the assembly of Oguma to have a foot board assembly, as in Richards. One would have been motivated to make such a combination because the ability to allow a patient to perform foot flexibility exercises, and to allow a patient to reposition himself and/or exit or enter the bed would have been achieved, as taught by Richards (col. 3, ln. 1-10).

As to claim 20, Richards teaches: wherein said foot board assembly comprises a dampening member (a damping function/ability is intrinsic to the resilient material used in Richards), said dampening member being adapted to prevent rapid returns of said foot board assembly to said resting position.

Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma US5862551 in view of Johnston US4409695, and further in view of Weismiller US5317769, and further in view of Poehner US4926457.

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As to claim 9, the difference between the claim and Oguma is the claim recites: wherein said mattress support comprises a radiolucent section, said radiolucent section being adapted to allow radiographic examination; of a patient while positioned upon said mattress support. Poehner discloses a hospital bed similar to that of Oguma. In addition, Poehner further teaches to make the support surface out of radiolucent sections.

It would have been obvious to one of ordinary skill in the art, having the disclosures of Oguma and Poehner before him at the time the invention was made, to modify the support surface of Oguma to be radiolucent, as in Poehner (col. 7, ln. 40-67; col. 8, ln. 1-31). One would have been motivated to make such a combination because the ability to permit x-rays to travel through would have been achieved, as taught by Poehner.

As to claim 10, Poehner teaches: wherein said radiolucent section comprises a radiolucent window through said third articulatable section.

As to claim 11, Poehner teaches: wherein said mattress support comprises an X-ray cassette support structure 110.

As to claim 12, Poehner teaches: wherein said X-ray cassette support structure is adapted to permit insertion and removal of an X-ray cassette without repositioning of the patient under radiographic examination (col. 9, ln. 14-40).

Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma US5862551 in view of Johnston US4409695, and further in view of Weismiller US5317769, and further in view of Morse US5166968.

As to claim 11, the difference between the claim and Oguma is the claim recites: wherein said mattress support comprises an X-ray cassette supports structure. Morse discloses a patient

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support similar to that of Oguma. In addition, Morse further teaches an X-ray cassette supports structure. It would have been obvious to one of ordinary skill in the art, having the disclosures of Oguma and Morse before him at the time the invention was made, to modify the support of Oguma to have an X-ray supports structure, as in Morse. One would have been motivated to make such a combination because the ability to hold an x-ray cassette for taking radiographs of patients on site would have been achieved, as taught by Morse (col. 1, ln. 5-10).

As to claim 13, Morse teaches, wherein said X-ray cassette support structure 22/33 comprises a mechanism adapted for positioning of an X-ray cassette, said mechanism being independently operable from either side of said bed (col. 4, ln. 47-57).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma US5862551 in view of Johnston US4409695, and further in view of Weismiller US5317769, and further in view of Bumbalough US5393938.

As to claim 14, the difference between the claim and Oguma is the claim recites: wherein said frame further comprises an integral scale, said scale being adapted to determine the weight of a patient positioned upon said mattress support. Bumbalough discloses an articulating hospital bed similar to that of Oguma. In addition, Bumbalough further teaches an integral scale.

It would have been obvious to one of ordinary skill in the art, having the disclosures of Oguma and Bumbalough before him at the time the invention was made, to modify the bed of Oguma to have a scale, as in Bumbalough. One would have been motivated to make such a combination because the ability to weigh a person on the mattress would have been achieved, as taught by Bumbalough.

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Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma US5862551 in view of Johnston US4409695, and further in view of Weismiller US5317769, and further in view of Einsele US4747171.

As to claim 21, the difference between the claim and Oguma is the claim recites: said bariatric bed further comprising a plurality of laterally adjustable side rails, each said side rail being collapsible to a transport position within the side planes of said frame. Einsele discloses a hospital bed similar to that of Oguma. In addition, Einsele further teaches a plurality of laterally adjustable side rails, each said side rail being collapsible to a transport position within the side planes of the frame (see Fig. 1).

It would have been obvious to one of ordinary skill in the art, having the disclosures of Oguma and Einsele before him at the time the invention was made, to modify the bed of Oguma to have side rails, as in Einsele. One would have been motivated to make such a combination because the ability to protect a patient would have been achieved, as taught by Einsele (col. 2, ln. 24-28).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oguma US5862551 in view of Johnston US4409695, and further in view of Weismiller US5317769, and further in view of Einsele US4747171, and further in view of Tappel US5542136.

As to claim 22, the difference between the claim and Oguma is the claim recites, wherein at least one said side rail comprises an interiorly positioned, integral bed control, said bed control comprising an image rendering display and being adapted to effect articulation of said mattress support.

Einsele teaches the side rails. Tappel discloses a hospital bed similar to that of Oguma. In addition, Tappel further teaches attaching an interiorly positioned, integral bed control having an image rendering display (see Fig. 1, 3) to raise and lower portions of the bed. It would have been obvious to one of ordinary skill in the art, having the disclosures of Oguma and Tappel before him at the time the invention was made, to modify the bed of Oguma to have the controls of Tappel. One would have been motivated to make such a combination because the ability to manually set control parameters would have been achieved, as taught by Tappel (col. 3, ln. 1-10).

Claims 24-26 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards US5295276 in view of Oguma US5862551.

As to claim 24, Richards discloses: a bed having a frame supporting a patient support surface, wherein the bed comprises: an articulation mechanism for articulating the patient support surface from a relatively horizontal, lying position to a seated position; a foot board assembly 20 connected to the patient support surface operable to be used as a step to support a patient entering or exiting the bed (col. 3, ln. 1-10), said foot board assembly being adapted to articulate away from a default position when a force is applied thereto, but to increasingly resist said force with increasing degree of articulation.

Richards never specifically discloses an articulation mechanism, but this is implied by the drawings. Nevertheless, Oguma discloses a bed apparatus similar to that of Richards. In addition, Oguma further teaches an articulation mechanism. It would have been obvious to one of ordinary skill in the art, having the disclosures of Richards and Oguma before him at the time the invention was made, to modify the assembly of Richards to have a mechanism, as in Oguma. The ability to change the mattress positions would have been achieved, as taught by Oguma.

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As to claim 25, Richards discloses: wherein said foot board assembly comprises a dampening member, said dampening member being adapted to resist snapback of said foot board assembly to said default position.

As to claim 26, Richards discloses: wherein said foot board assembly comprises a dampening member, said dampening member being adapted to resist articulation of the foot board assembly when used as a step.

As to claim 28, Richards discloses, further comprising a cushion 90 affixed to the bottom of the foot board assembly. The limitation "said cushion serving to protect persons who might inadvertently place their foot underneath the foot board assembly while a patient is entering or exiting the bed" is functional language and holds little patentable weight because it does not further define any structural elements.

As to claim 29, Richards discloses, further comprising a pivot mechanism 70/71 to enable the foot board assembly to lie coplanar with the patient support surface (the bottom surface of 20 lies coplanar with the patient support surface).

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richards US5295276 in view of Oguma US5862551, and further in view of Einsele US4747171.

As to claim 30, the difference between the claim and Richards is the claim recites, further comprising a side rail assembly operable to pivot from a raised position to a lowered position and further operable to slide laterally from a retracted position to an extended position. Einsele discloses a bed with side rails similar to that of Richards. In addition, Einsele further teaches the side rail assembly. It would have been obvious to one of ordinary skill in the art, having the disclosures of Richards and Einsele before him at the time the invention was made, to modify the

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bed of Richards to have side rails, as in Einsele. One would have been motivated to make such a combination because the ability to protect the patient would have been achieved, as taught by Einsele.

Allowable Subject Matter

Claim 27 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: claim 27 recites that the foot board assembly comprises hydraulic cylinders and a spring to perform the return and dampening functions. The closest prior art of Richards discloses a foot board assembly, but not including any hydraulic cylinders. Therefore the prior art of record fails to disclose or suggest the claimed limitations in claim 27.

Response to Arguments

Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US4847929 to Pupovic discloses a bed with adjustable positions.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Y Ho whose telephone number is (703)305-4556. The examiner can normally be reached on M-F 10:00AM-6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J Swann can be reached on (703)306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TYH



ROBERT J. SANDY
PRIMARY EXAMINER